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MANAGEMENT LETTER

DATE: July 22, 1999

TO: Metropolitan King County Councilmembers

VIA: Don Eklund, King County Auditor

FROM: Susan Baugh, Principal Management Auditor

SUBJECT: King County Department of Transportation Consolidation Opportunities

At the request of the Metropolitan King County Council, the Auditor's Office recently initiated a management study of the King County Department of Transportation Consolidation Opportunities. The primary study objective was to determine whether additional functions within the Metro Transit Division and Road Services Division could be consolidated, including the management accounting and reporting systems, to promote greater cost-effectiveness or efficiency in the delivery of county transit and roads services. In addition, audit staff reviewed the planning functions that were consolidated in 1996 to determine whether the combined functions were operating effectively.

General Conclusion

Additional consolidation opportunities within the Department of Transportation are very limited given the inherent differences in Metro Transit Division and Road Services Division operations and the full utilization of current staff and resources in both divisions. However, informal collaborative arrangements were developed by the Metro Transit and Road Services Divisions for the effective delivery of select engineering and maintenance services. In addition, the consolidation of the former King County long-range planning and Metro Transit capital planning functions into the Department of Transportation Planning Division resulted in enhanced county transit and transportation planning services. Finally, the two Department of Transportation management accounting and reporting systems, which were not compatible and resulted in significant reporting differences, will be replaced in 2000 with the county's new financial management system.

The results of our analysis are described in more detail on the following pages:

Consolidation Opportunities Within the Department of Transportation Were Limited Due to Inherent Differences in Metro Transit and Road Services Divisions' Operations.

Ordinance No. 11955, relating to the King County/Metro merger, contained a proviso directing the Department of Transportation to eliminate duplicate field maintenance functions in the Department of Transportation by consolidating the Metro Transit and Road Services Divisions' maintenance activities. In 1996, the Metro Transit Power and Facilities and the Road Maintenance Sections reviewed potential consolidation opportunities in each section, and produced a report that documented potential FTE reductions that could be achieved by combining the certain maintenance functions. Exhibit 1 displays the potential FTE reductions.

EXHIBIT 1			
Metro Transit Power & Facilities and County Road Maintenance Services Consolidation Analysis			
Activity	Transit Add (Cut)	Road Add (Cut)	Net Impact
Asphalt/Concrete	(.5 FTE)	0 FTE	(.5 FTE)
Detention Pond Maintenance	(.5 FTE)	0 FTE	(.5 FTE)
HazMat Disposal (Vactor)	(.5 FTE)	0 FTE	(.5 FTE)
Sweeping	(2.37 FTE)	1 FTE	(1.37 FTE)
Vashon	(.25 FTE)	0 FTE	(.25 FTE)
Ornamental Tree Maintenance	(0 FTE)	(1 FTE)	(1 FTE)
Hand Mowing	(0 FTE)	(1 FTE)	(1 FTE)
Painting	(0 FTE)	(1 FTE)	(1 FTE)
Total/Net Impact	(4.12 FTE)	(2 FTE)	(6.12 FTE)

SOURCE: Department of Transportation Consolidation Efficiencies Report, 1996.

As shown in Exhibit 1, a total of 4.12 FTE reductions in the Power and Facilities Section and 2 FTE reductions in Road Maintenance Section could potentially be achieved by consolidating the above functions, based on transportation staff analysis. The organizational transfer or placement of the consolidated functions was determined on the basis of expertise or resources required to complete the workload. For example, landscape maintenance would be transferred to the Power and Facilities Section in recognition of their superior expertise and unique contractual requirements with cities, and the asphalt/concrete paving and detention pond maintenance would be transferred to the Road Maintenance Section based upon their superior expertise and equipment for paving and detention facilities maintenance.

The consolidation opportunities report was transmitted to the County Executive to be reviewed and forwarded to the Council in response to the proviso. However, the report was not forwarded to the Council due to collective bargaining issues. The County Executive determined that the potential loss of employee morale and productivity as well as the extensive labor negotiations required to change work assignments, work sites, and reporting structures for .5 to 2.37 FTEs in multiple trades covered by multiple collective bargaining agreements outstripped any efficiency gains from consolidating the maintenance activities.

Subsequent to the completion of the Consolidation Efficiency Report in 1996, the Power and Facilities Section reorganized its work units to improve productivity, client services, and internal operating efficiencies in an effort to compete successfully for Sound Transit business. One example previously discussed with the Council was the development of a Work Order Unit to better coordinate, schedule, and account for the Power and Facilities Section's workload. The section manager is also working on management information system improvements to better plan and account for the work performed and reduce costs within the section, since it was previously unable to account for the actual time and unit costs of its maintenance activities.

Another limitation to consolidation is that the Power and Facilities Section currently contracts out or does not routinely perform maintenance services that could have been assumed by the Road Maintenance Section. For example, much of the routine transit facilities maintenance and garbage pick-up services are provided through inmate service contracts with the Washington State Department of Corrections and the King County Department of Adult Detention, which are more economical than similar services provided by county forces.

However, audit staff reviewed opportunities to consolidate sign production services to determine whether cost-effective opportunities for consolidation were available. Although the type of work performed and equipment used in sign production was similar, the consolidation opportunities were also limited because both the Transit Division and Road Services Division already utilized their staff efficiently. In fact, the Transit Division is required to periodically contract out work, such as bus wraps, to meet schedule demands. In addition, the Road Services Division provides contract sign production services for other King County agencies, and other local government agencies and utilities which would be impacted if the functions were merged.

Unique facilities were also required for the two sign production units, such as the special Metro Transit bus bays for painting and wrapping buses. While the potential consolidation of the sign production equipment was also reviewed, both the Metro Transit Division and the Road Services Division have peak workload periods (e.g., signs for bus service changes, replacement signs following floods and other emergent conditions, etc.) that require the full use of existing staff and equipment. While there is an opportunity to share equipment during certain non-peak periods, it would not be reasonable to eliminate equipment, particularly since the equipment is of moderate value. Approximate equipment costs were \$97,000 for the Metro Transit Division and \$90,000 for the Road Services Division. The most expensive piece of equipment in the combined inventories was a silk screen press purchased for \$16,900.

Despite the limited opportunities for consolidation, the Power and Facilities Section and Road Maintenance Section collaborated on maintenance activities that required the sharing of staff and other resources. Examples of collaborative efforts include:

- Shared use of Road Maintenance Services' equipment to dewater/dry storm water wastes from park-and-ride lots.
- Maintenance service contracts were established for mowing, storage, and fence installation services.
- Shared expertise to purchase equipment for cleaning industrial and storm water collection and treatment systems.

- Examined opportunities to share facilities in remote locations (Star Lake) as part of the Operating Facilities Expansion Program.

It should be noted that future collaboration opportunities may surface, such as maintenance on storm water treatment and conveyance systems, supply procurements, and other maintenance services. Department support of these collaborative efforts would be useful to ensure that services are completed in the most efficient and cost-effective manner, and that county resources are maximized.

Additional Metro Transit Design and Construction and Road Engineering Services Consolidation Opportunities Were Limited Due to Significant Workload Volumes Created by the Public Demand for Transportation Services. However, the Potential Consolidation of Pavement Design Services May Be Feasible in the Event of a Downturn in Workload Volumes.

Ordinance No. 12538, adopting the 1997 annual budget, contained a proviso that required the Department of Transportation to produce a report on the transfer of seven design and engineering positions from the Transit Design and Construction Section's Passenger Facilities Program to the Road Engineering Services Section. The Passenger Facilities Program provides design and construction services for park-and-ride lots, hubs, transit centers, and shelters. A draft report was prepared identifying the existing and proposed placement positions for the engineers as well as barriers to the consolidation of Metro Transit Passenger Facilities Program and Road Engineering Services functions. In addition, the report addressed barriers to consolidation, including differences in management structures (i.e., flexible matrix vs. structured hierarchical), functional job descriptions for engineering personnel in the two sections, and potential lost wages for the Transit Design and Construction personnel who would transfer into lower salaried county engineering positions. In fact, one Metro Transit engineer was potentially faced with a \$20,000 salary reduction due to the lack of a comparable position in the Road Engineering Services Section.

Another significant concern was that both the Metro Transit Design and Construction Section and the Road Engineering Services Section were faced with heavy workload volumes. Currently, the workload volumes for both sections continue to be significant due to the increasing public demand for roads and transit services, and all design and engineering personnel are fully utilized. In fact, the Design and Construction Section is currently behind schedule in the implementation of the transit six-year capital development program. However, there may be opportunity in the future to focus specifically on consolidation of pavement services in the event that the workload volumes decrease in the Road Engineering Services Section. Approximately \$3.3 million of the \$50.2 million Design and Construction Section capital projects scheduled in 1999 involved pavement work.

Despite the heavy workload volumes, the Metro Transit Design and Construction Section and the Road Engineering Services Section have worked collaboratively on engineering projects. Examples of collaborative design engineering efforts include:

- Road Engineering Services usually manages the design and construction of Metro Transit's passenger facilities for new and upgraded road projects in unincorporated King County.
- Transit Design and Construction worked with the Road Services Division and Department of Construction and Facilities Management to help define the scope of work and obtain consultants to complete the county underground storage tank removal and replacement program.
- Transit Design and Construction utilizes the Road Engineering Services survey team and obtains traffic engineering and signalization services from the Traffic Engineering Section, to augment transit engineering resources.
- Transit Design and Construction provides mechanical and electrical engineering services to roads, if requested, and is currently providing design services to upgrade the heating ventilation and air conditioning system at the Road Services Division's Renton Facility.

It should also be noted that there could be potential project management benefits from the consolidation of Metro Transit and Road Services engineering functions, because the Road Services Division has developed a sophisticated computerized project management system. In addition, the Road Services Division has implemented an active management oversight process for the aggressive implementation of roads capital improvement projects.

Based on County Policy the Merger of the Metro Transit Capital Planning and King County Long Range Transportation Planning Functions Was Successful After Some Initial Adjustments.

Ordinance No. 12029, adopting the 1996 annual budget, contained a proviso directing the Department of Transportation to integrate all county transportation planning activities, including roads, transit service and passenger facilities, pedestrian and bicycle facilities, and transportation demand management programs. The former Metro Transit Capital Facilities Planning Division and Grants Section were consolidated with the King County Long-Range Transportation Planning Division in 1996 in response to the budget proviso.

The consolidation of the capital facilities and long-range transportation planning functions was largely successful. Although much of the transit and transportation planning resources are still committed to functions carried out independently by the two planning groups, effective collaboration has occurred on approximately four or five joint projects. For example, the planning for the Regional Arterial Network improvements includes lane additions, transit services and shelters, and priority bus and HOV treatments. The Transportation Planning Division's management team believe the effective collaboration of both planning groups was consistent with the county's policy of integrating and strengthening regional transportation planning efforts and services.

However, some adjustments were required to successfully merge the former King County and Metro Transit planning functions. Eight staff from the former Capital Facilities Planning group subsequently transferred back into other Metro Transit Sections or Department of Transportation administration either to focus on new county initiatives and priorities, or to be

more closely aligned with interrelated transit functions. Specifically, two Transit Oriented Development Specialists transferred from the Planning Division to the Deputy Department Director's Office in an effort to enhance the visibility of three important housing demonstration projects, and six former Speed and Reliability staff transferred back into the Service Development Section to enhance coordination of service planning and scheduling activities. The Transportation Planning Division's management team does not dispute that personnel and performance issues arose during the initial consolidation effort, and acknowledges that more improvements are needed to coordinate long-range transit planning with capital facilities planning. Nevertheless, the Transportation Planning Division is committed to maintaining a culture of cooperation with the Metro Transit and Road Services Divisions and with its many regional partners.

RECOMMENDATIONS

- Department of Transportation management should explore opportunities to consolidate pavement design services required for Metro Transit Passenger Facilities Program with Road Engineering Services after the county-wide classification and compensation program is implemented, particularly if there is a significant downturn in workload volume for the Road Engineering Services Section.
 - Department of Transportation management should continue to encourage the Metro Transit and Road Services Divisions to pursue collaborative efforts that result in more cost effective and efficient services for county citizens.
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The Department of Transportation Has Two Management Reporting and Accounting Systems Which Are Not Compatible and Result in Significant Reporting Differences. However, Both Systems Will Be Replaced in 2000 With the County's New Financial Management System.

The Department of Transportation has two accounting and management reporting systems: the Integrated Business Information Systems (IBIS) and the Accounting Resource Management System (ARMS). The Metro Transit Division uses the IBIS system, and the Road Services Division uses the ARMS system.

The Road Services Division has developed a sophisticated and detailed project management software that extracts financial information from the ARMS system. The Road Services Division is able to account for its activities at project, phase and even task level from the ARMS system. For example, a precise estimate of the total cost of paving a mile of asphalt, including all labor, equipment and material costs, can be generated by the roads maintenance management system which extracts task level cost data on asphalt related expenses from ARMS. The Road Services Division's management reporting systems are routinely used to manage roads capital improvement and maintenance project costs and schedules, prepare annual budgets; and develop reasonable cost estimates for roads services contracts with other jurisdictions.

In contrast, the Metro Transit Division uses the IBIS system strictly as an accounting system. Metro Transit acquired the IBIS system in 1995. Although some IBIS-compatible project management software was developed by the Technical Services Division, the project management system transferred with the Water Quality Division to the Department of Natural Resources.

In addition, the county made a decision to invest in a new county-wide financial management system shortly after the consolidation in 1996, so Metro Transit decided not to invest resources into the development of IBIS-compatible project management. Concerns were also raised about the quality or validity of financial data below the IBIS project level, due to potential input and transfer errors.

Compatibility problems also surfaced between the IBIS and ARMS systems when Department of Transportation units attempted to charge roads services directly to IBIS or transit services directly to ARMS. While many problems have been resolved through software enhancements, periodic manual transfers are still required between Metro Transit and Roads Services units. The two different systems have added complexity to the Department of Transportation and Transportation Planning Division, who are responsible for managing related budgets and expenditures in two different financial systems.

However, many of the accounting and management reporting differences will be resolved when the county implements the SAP Core Financials system next year. The SAP Core Financials system has a project accounting/management module that will be available county-wide. The single county-wide, department-wide financial system should reduce the accounting complexity for both the transit and roads functions and promote consistency in management reporting for both the Metro Transit and Road Services Divisions.

RECOMMENDATION

- After the SAP Core Financials system is implemented, the Department of Transportation management should implement a Metro Transit Division management information system that provides detailed reporting at the projects and task level and allows for active monitoring of project costs and schedules. An effort should be made to provide a consistent level of management information and reporting for both divisions at that time.

In summary, there were very limited cost, FTE or equipment savings that could be identified from consolidation of additional functions in the Metro Transit and Road Services Divisions. However, a culture of cooperative teamwork could produce additional benefits for the Department of Transportation and the public, as demonstrated by some past collaborative efforts. In addition, the Department of Transportation's accounting and management reporting issues can be addressed when the county's new financial management system is implemented.

If you have any questions or would like further information about this management letter or the consolidation opportunities study process, please contact Susan Baugh or me at 296-1655.

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July 12, 1999
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DE:SB\hlm:Projects\Consolidation\management letter

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